



ECO SECURITIES



EcoSecurities Group plc

2008 U.S. Coal Mine Methane Conference

A Primer

EcoSecurities is a leading company in the business of sourcing, developing and trading carbon credits in the global carbon market.

Founded in 1997, EcoSecurities' project portfolio today is comprised of:

- > **496 projects at different stages of the CDM cycle**
- > **spanning 34 countries, using 18 technologies**

- **Over 130 projects registered with the CDM Executive Board**
- **Developed and/or contributed to more than 10 UN approved methodologies**
- **Over 355 of the projects have secured financing** and over 250 are under construction or operational

Our global presence



Buenos Aires
Bankok
Beijing
Bern
Casablanca
Chengdu
Claremont
Delhi
Dubai
Dublin
Jakarta
Johannesburg
Karachi
Kiev
Kuala Lumpur



■ Countries where EcoSecurities has projects

● EcoSecurities' current office locations or representatives

Lima
Madrid
Manila
Manama
Mexico City
New York
Oxford
Portland
Rio de Janeiro
Rome
San Jose
Santiago
Singapore
The Hague
Tokyo



Proven Track Record

Jan 1997	EcoSecurities formed	Oct 2005	La Esperanza project, structured by EcoSecurities, first ever CERs issued
Nov 1997	EcoSecurities develops first carbon verification service in the world	Dec 2005	EcoSecurities successfully lists on London AIM €80 million
Sep 2003	EcoSecurities develops one of the first methodologies to be approved by the UNFCCC CDM Executive Board	Nov 2006	EcoSecurities is voted is voted the 'World's Leading GHG Advisory Firm' for the 6 th year in a row
Nov 2004	EcoSecurities' NovaGerar landfill gas project is the first CDM project worldwide to be registered by CDM Executive Board	Jun 2007	Strategic investment by Credit Suisse and institutional placing by ABN Amro €100 million

The Various Carbon Markets in 2007

Kyoto

Non-Kyoto

Voluntary

Developing

EU ETS
\$50.1 billion
2,061 MtCO₂e

CDM
\$7.4 billion
551 MtCO₂e

Jl
\$499 million
41 MtCO₂e

NSW GGAS

\$224 million
25 MtCO₂e

**Regional
Greenhouse Gas
Initiative
(U.S. – 2009)**

**California
Emission Trading
Scheme
(U.S. – 2012)**

Retail

\$258 million
42.1
MtCO₂e

CCX
\$72.4
million
22.9
MtCO₂e

**Permanent Forest
Sinks Initiative
(New Zealand)**

**Offset Trading
System (Canada)**

Source: State of the Voluntary Carbon Markets 2008

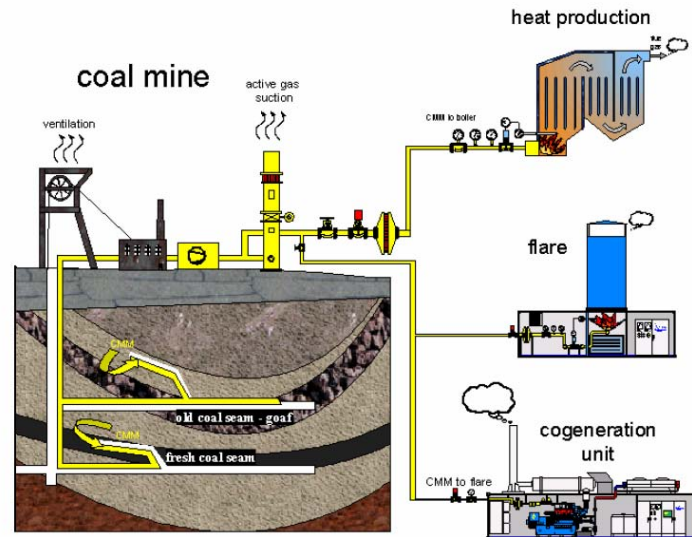
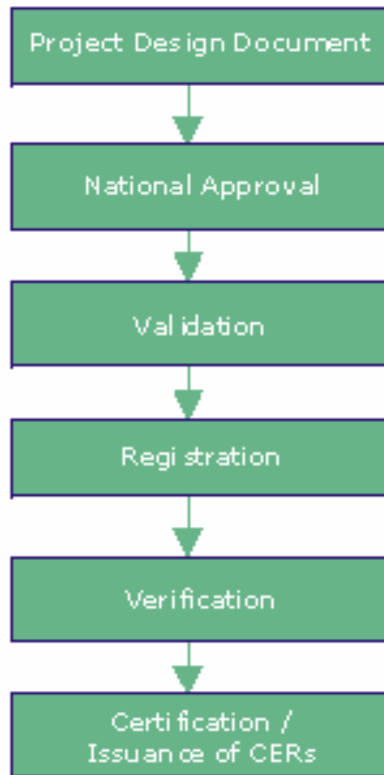


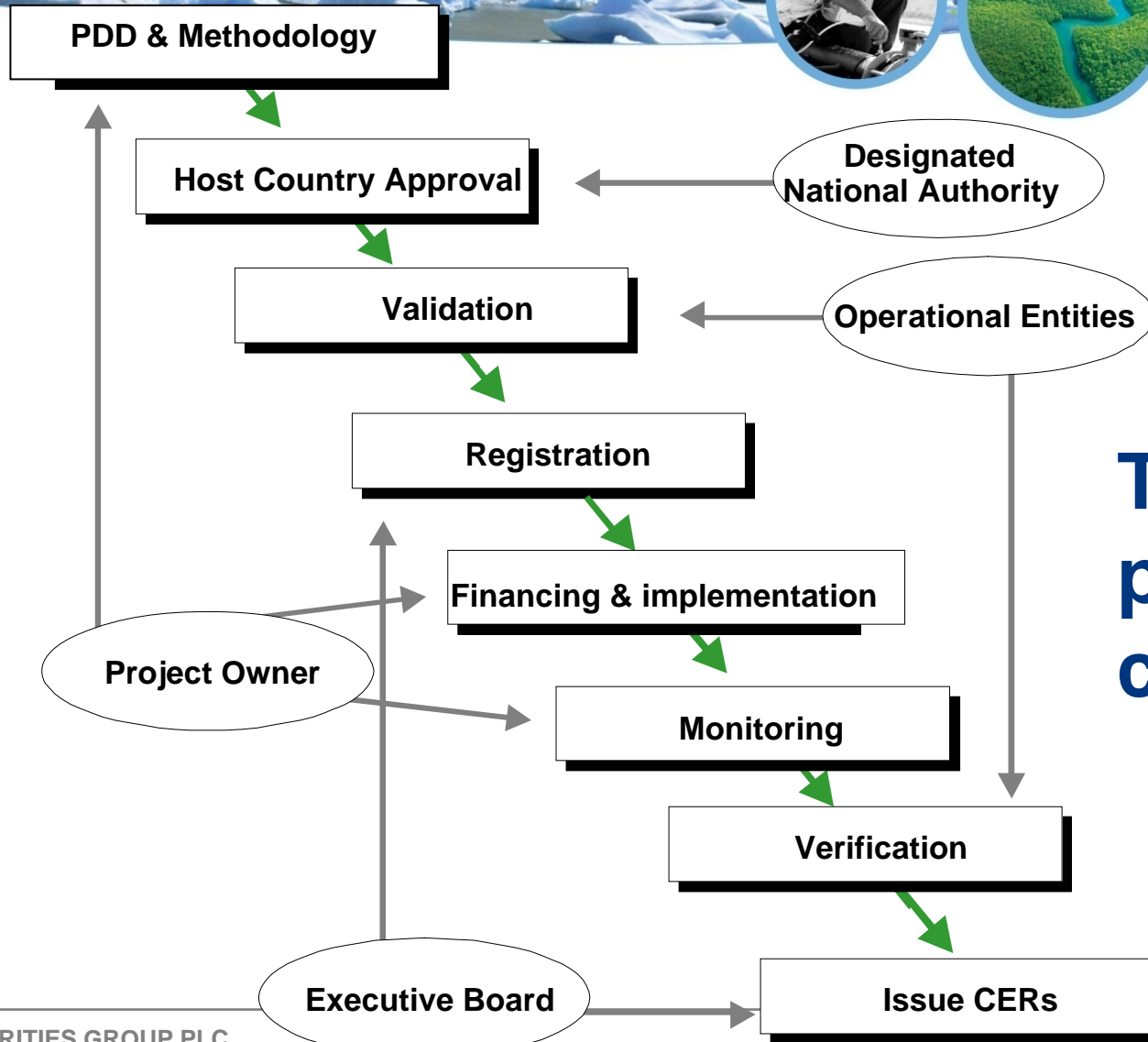
EcoSecurities' Value Added Proposition

CDM/JI development

Technology Partners

Financing





The CDM project cycle

Coal Mine Methane Emissions for Selected Countries 2000 and 2010

Country	2000 CH ₄ Emissions (Million m ³)	2000 CO ₂ Equivalent (MMT)	2010 CH ₄ Emissions (Million m ³)	2010 CO ₂ Equivalent (MMT)
Australia	1,381	19.7	2,004	28.6
Canada	98	1.4	91	1.3
China	10,000	142.7	15,753	224.7
Czech Republic	351	5.0	266	3.8
Germany	1,030	14.7	764	10.9
India	683	9.7	1,319	18.8
Japan	133	1.9	147	2.1
Kazakhstan	488	7.0	447	6.4
Poland	1,037	14.8	939	13.4
Russia Federation	2,236	31.9	2,138	30.5
South Africa	496	7.1	506	7.2
Turkey	123	1.8	184	2.6
Ukraine	1,970	28.1	1,689	24.1
United Kingdom	365	5.2	343	4.9
United States	5,461	77.9	5,748	82.0

(Sources: U.S. EPA. 2001. *Non-CO₂ Greenhouse Gas Emissions from Developed Countries: 1990-2010*. Sept. 2001. EPA-430-R-01-007 and country reports)

VAM Market Potential - Worldwide

Country**	2000 Methane Emission*** (Bm ³)	Percent of World Total	2000 VAM Emissions (Bm ³)	2000 VAM Emissions (MMT CO ₂ e)	Percent of Study Total VAM
China	12.0	36.4	6.5	92.3	45.4
United States	5.5	16.5	2.5	36.0	17.7
Russia	2.7	8.1	0.6	9.2	4.5
Ukraine	2.0	6.0	2.1	30.1	14.8
Australia	1.4	4.2	0.7	9.5	4.7
Germany	1.2	3.7	0.09	1.2	0.6
Poland	1.1	3.3	0.4	5.7	2.8
India	0.7	2.1	0.3	4.0	2.0
Kazakhstan	0.5	1.5	0.3	4.5	2.2
South Africa	0.5	1.5	0.4	5.8	2.8
United Kingdom	0.4	1.1	0.2	2.2	1.1
Czech Republic	0.4	1.1	0.06	0.8	0.4
Mexico	0.1	0.4	0.1	1.9	1.0
<i>Study total</i>	<i>28.3</i>	<i>85.8</i>	<i>14.2</i>	<i>203.4</i>	<i>100.0</i>
<i>Other countries</i>	<i>4.7</i>	<i>14.2</i>	<i>2.4</i>	<i>33.7</i>	
<i>World total</i>	<i>33.0</i>	<i>100</i>	<i>16.6</i>	<i>237.1</i>	

Source: US EPA, 2000

CMM for electricity generation

Location: Chongqing Municipality, China

Type of emission reductions: Methane destruction and electricity generation

Project description:

- 24 x 0.5MW generators running on CMM from 4 mines
- Electricity will be supplied to the mines, offsetting coal-dominated grid
- In conjunction with supply to households
- Scheduled to begin operating by early 2008
- An investment analysis of the project demonstrated that the IRR of the project (without CDM financing) was 8%. With CDM, it rises to 49%

Estimated ERs: 800,000 tCO₂e/year

Current Status: Validation



Key Questions

- Your coal mine operations
 - Pre-mining drainage flow rates m³/year?
 - What is methane concentration range?
 - Are methane emissions currently monitored?
 - What kind of mining method is currently employed at the mine?
 - Are there any existing use of CMM already?

- What are you expectations from this project?
 - Which technology provider suits you best?
 - What type of deal structure you are looking for?
 - What are your terms of reference?

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